

STATES OF OUR UNION

# SIKKIM

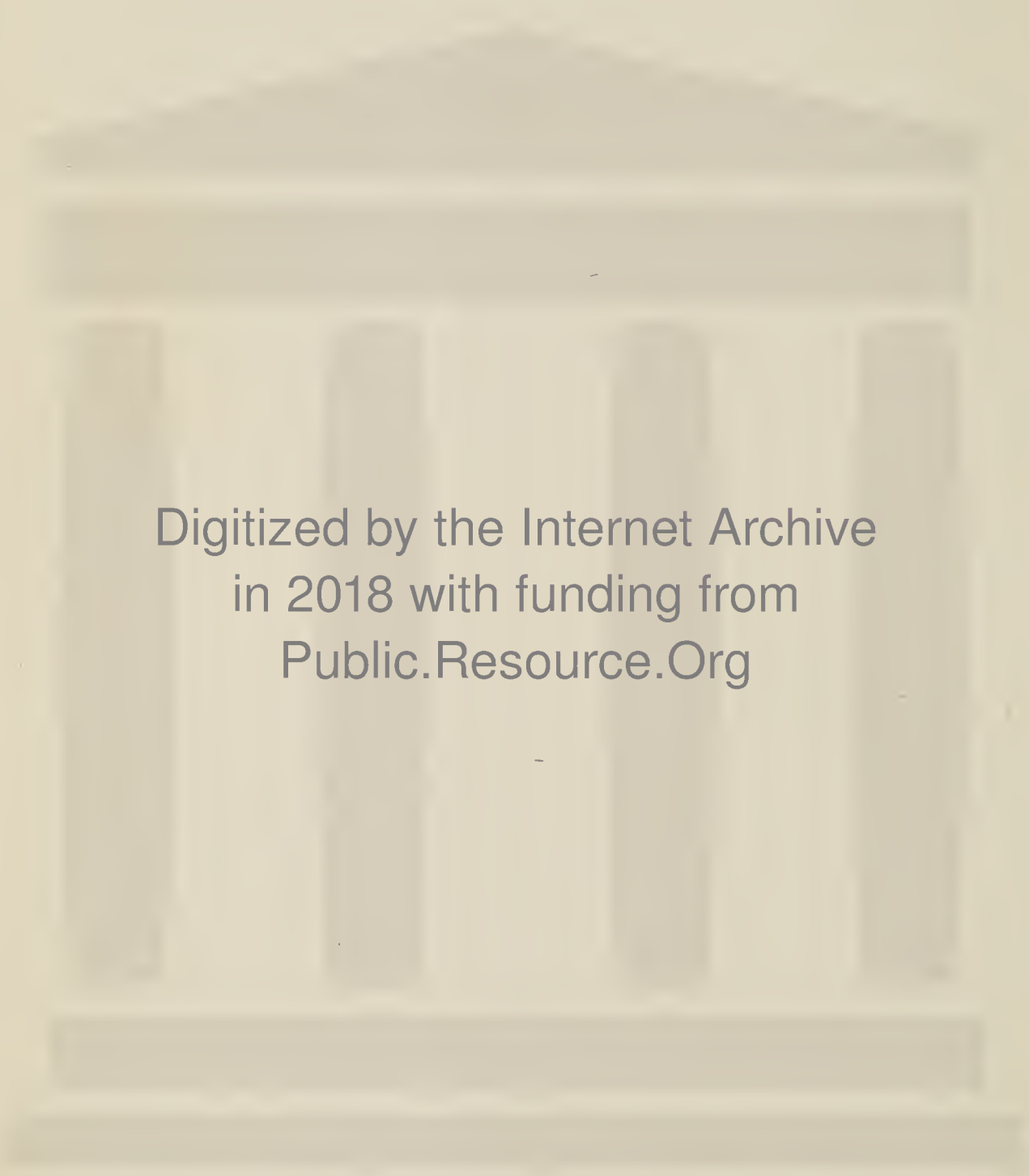






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*States of Our Union*

# SIKKIM

Sunil C. Roy

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## ABOUT THE SERIES

This is the twenty-fourth book in the series "States of Our Union". The other books already released are on Kerala, Andhra Pradesh, Orissa, Uttar Pradesh, Himachal Pradesh, Assam, Punjab, Haryana, Rajasthan, Andaman and Nicobar Islands, Maharashtra, Gujarat, Lakshadweep, Mizoram, Tamil Nadu, Jammu and Kashmir, Bihar, Manipur, Karnataka, Pondicherry, Goa, Daman and Diu, Dadra and Nagar Haveli, Tripura and Arunachal Pradesh. The object of the series is to promote greater awareness and understanding of different regions of the country.

The books seek to provide a factual account of the life, culture and economic development of our States and Union Territories and the contribution of each of them to India as a whole. They are addressed to the general reader and would thus serve as an introduction of a State or Territory to other parts of the country.







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## 1. THE LAND AND THE PEOPLE

**S**IKKIM IS THE youngest State of India. It soars from the tropical jungles at the foot of the Himalayas to misty alpine valleys, where white prayer flags flutter beside monasteries.

A mountain State in the eastern Himalayas and a former protectorate of India, Sikkim is bounded on the west by Nepal, on the north by Tibet, on the east by Bhutan and on the south by West Bengal. It has an area of 7,300 square kilometres.

The 22nd State of the Indian Union is somewhat rectangular in shape, 113 kilometres long and 64 kilometres wide. The State forms part of the inner Himalayan range of mountains which project southwards.

Sikkim is located 28 degrees 07' 48" and 27 degrees 04' 46" north latitude and 88 degrees 00' 58" and 88 degrees 55' 25" east longitude.

In the north, the State stretches up to the great Himalayan range which is the watershed between Tibet and Sikkim, with four main passes—Sesela or Dachila about 5,255 metres, Kongralla about 4,877 metres, Nakula about 5,270 metres and Chorten Nyimala about 5,791 metres. "La" is the Tibetan word for a pass.

In the east, the Dongkya range separates Sikkim and the Chumbi Valley of Tibet. This range has a number of passes, the most notable of which are Nathula and Jelep-la, just about 4,367 metres high.

In the west, the Singalila range is the boundary between Sikkim and Nepal. The Khangchendzonga (Kanchanjunga), the third highest peak in the world, is to be found in this range.

In the south, there is no natural feature that marks the frontier between Sikkim and West Bengal, except a part of the border along which runs the Teesta and Rangit rivers.

The Lachen and Lachung valleys to the north-west are used as grazing pastures by Sikkimese herdsmen.

The name Sikkim is derived from two Limbu words meaning 'New Palace'. The Tibetans called it Denzong, or the land of rice, while it was known to the Lepchas, the original inhabitants of Sikkim, as "Nye-ma-el" or heaven. This is according to two writers<sup>1</sup> who co-authored a book, *The Lepchas of the Darjeeling District*.

Very little is known about the early history of Sikkim. According to an Indian author, three lamas came from Tibet at the beginning of the 17th century to convert the people to their doctrine. They found at Gangtok one Phuntsog Namgyal, the great-grandson of Guru Tashi of Tibetan origin. The lamas selected and invested the youngman as the Gyalpo, or the king, of Sikkim. This event took place in 1642 at Yuksam.

According to another English author,<sup>2</sup> this Phuntsog Namgyal became the first ruler of the Namgyal dynasty which came to an end with Sikkim joining the Indian Union on May 16, 1975. The institution of the Chogyal was thus abolished. The kingdom of Sikkim in those days was very extensive and included the Chumbi Valley of Tibet, beyond the Nathula pass, and the Darjeeling district of West Bengal.

During the reign of the third ruler of Sikkim, the principality was overrun by Bhutan in 1706. Tibet came to her rescue and drove out the Bhutanese.

Sikkim is a land of varied elevations, ranging from 244 metres above mean sea level at the southern foothills to over 6,096 metres along its northern and northern-western boundaries.

The most magnificent group of mountains is, of course, the Khangchendzonga group dominated by the Mount Khangchendzonga which towers to a height of over 8,534 metres. Between the Singalila and the Chola ranges are a succession of deep valleys, the largest being the valley of the Teesta river.

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1. A. K. Das and S. K. Banerjee.

2. J. C. White.



The wide variations in altitudes account for similar variations in climatic conditions, ranging from sub-tropical heat of the lower valleys to the icy cold of the rugged mountain slopes that reach up to the land of the perpetual snow.

The rainfall varies from 127 cm to 600 cm annually in some areas. Sikkim receives most of its rainfall between the months of May and September.

In the Teesta river region, the monsoon penetrates quite far north, thereby extending the wet zone right up to the lower reaches of the snowy mountains. The rainy period is characterised by long spells of sunshine and bright weather.

Guarded by the snow-clad Khanchendzonga—the guardian deity of Sikkim—and with all its rich fauna and flora, the State is girdled by rivers and streams, notably the Teesta and Rangit. ('Chu' is a Bhutia word for river or water and 'Khola' Nepali word for stream.)

## THE PEOPLE

The simple and hard-working people of Sikkim comprise Nepali, Lepcha and Bhutia ethnic groups. There is a sprinkling of plainsfolk, who had migrated into Sikkim generations ago. They form part of the business community who live in perfect harmony and mutual understanding with the rest of the people in the State.

According to the 1971 census, Sikkim had a population of 2,09,843 as on March 31.

The Lepchas, who call themselves "Rong Pa" (Ravine Folk), are believed to have been the original inhabitants of Sikkim. In course of time, the Bhutias and the Nepalese came and settled in Sikkim.

Racially akin to some of the hill tribes of Assam, the Lepchas are generally considered to be mild and peaceful by nature. They are accustomed to living in remote and inaccessible regions, where they develop fondness for bird, beast and flower

and an extensive knowledge of the forests and mountains. The majority of Lepchas are Buddhists by religion.

The Bhutias belong to an ethnic group resembling the Lepchas with whom they have had centuries-old contacts and brotherhood. The Bhutias came to Sikkim in the fourteenth century and are considered good traders and agriculturists and many of them are herdsmen looking after the valuable herds of yaks and sheep.

The Bhutias, who came from Tibet to Sikkim, were Buddhists of the Nying-ma-pa sect, an old sect of Buddhism that had commanded power in Tibet before the system of the Government of Dalai Lamas was instituted. Indeed, religious influences have always played a great part in the life of these people, and even today the Bhutias, almost without exception, are strongly motivated by religious considerations in their daily life.

Their bonds with the Lepchas date back to more than 500 years when a blood brotherhood was established between their tribal chiefs at Kabi Lungtsok in north Sikkim.

The Nepali settlers today constitute almost three-fourths of Sikkim's population. The large majority of the Bhutias and Lepchas are Buddhists, while the majority of the Nepalese are Hindus.

By and large, the Nepalese are a hardy and an industrious lot, and make excellent cultivators.

Other tribes who have lived in Sikkim for centuries are the Magars and Tsongs or Limbus. The Magars were one of the groups mentioned among those celebrating the coronation of the first Chogyal, Phuntsog Namgyal. The Tsongs, similarly, seem to have lived in Sikkim for several centuries, although a large number of them chose to form their own kingdom—Limbuana—and seceded from Sikkim in the 18th century. The kingdom of Limbuana was subsequently merged with the present-day Nepal. It has been suggested that the name Sikkim could have been derived from the Tsong term "Sukkim", meaning "new, or happy house".



The largest migration into Sikkim took place over the last century when different tribes entered Sikkim mainly from northern and eastern Nepal. The influx of the new settlers into Sikkim opened up many lands which had been lying idle.

### RELIGION

The Mahayana Buddhism was the state religion of Sikkim, but the Sikkimese were allowed full freedom of worship. There are about 67 monasteries in Sikkim. The most important monasteries from religious and historical sense are located at Pemayangtse, Tashiding, Phensang, Phodang, Rumtek and Ralang. Besides, there are the Scottish Mission and the Roman Catholic Mission.

For several centuries, the Mahayana Buddhism was the state religion of Sikkim. Mahaguru Padmasambhava, popularly known as the second Buddha, who blessed and consecrated this land in the eighth century, is regarded as the saviour of Buddhism and is held in deep veneration. Legend has it that this patron saint, Guru Padmasambhava, prophesied that Sikkim would become the home of "Chos" (Dharma).

Besides large monasteries, there exist in Sikkim nearly 150 temples known as Mani Lhakhang, where the local nuns and female devotees practise devotional worship and turn prayer wheels. The teacher is held in greatest reverence in Sikkim. Next to Lord Buddha himself is the Tantric Saint, Padmasambhava (the Lotus-Born) Guru Rimpoche (Precious Master). He is known throughout Sikkim, Bhutan and Tibet, where his image is frequently accorded a special place of honour at the altar of monasteries and temples.

While the bigger religious institutions have their own endowments in landed properties, several monasteries get the government subsidy annually and also financial assistance for repairs and improvements.

The Ecclesiastical Department supervises and guides the affairs of the monasteries, their upkeep, regular performance of

periodical religious ceremonies, observance of monastic rules and maintenance of discipline. It also helps in the construction and repairs of Mandirs, mosques, etc.

In this process, the older values, religion and culture of the people have been given their rightful place at the fountain-head of the Government—the Secretariat at Gangtok. Here, within the precincts of the seat of the Government, stands prominently a beautiful shrine with an image of the Buddha in “Dharma Chakra Mudra”. At the feet of the Lord is inscribed in golden letters a stanza from the writings of the venerated Buddhist scholar-saint, Shanti Deva.

There are six big monasteries in Sikkim of which the Pemayangtse Gompa at Gyalshing in western Sikkim is the most important and the principal religious institution in the State.

The Pemayangtse monastery was founded during the time of Chogyal Phuntsog Namgyal, the first consecrated king of Sikkim, by Gyalwa Lhatsun Chempo, one of the three Lamas who had performed his consecration ceremony at Yuksam in western Sikkim, in 1642.

Lhatsum Rimpoche, being the Chief Royal Lama as also the Head Lama of Pemayangtse monastery, attended all the important religious functions at the Royal Chapel. This tradition is still being followed and the Lamas of the Pemayangtse reserve the privilege of performing important religious ceremonies in the Royal Chapel.

The monastery at Tashiding, in the centre of Sikkim, is the most holy of all the sacred places in the State. The place itself is considered the most sacred, blessed by Mahaguru Padma-sambhava.

Nyadak Lama, one of the Lamas who consecrated the first Chogyal at Yuksam in 1642, built the first monastery during the reign of Phuntsog Namgyal. The third Chogyal, Chagdor Namgyal, rebuilt it during his reign.



The monastery at Rumtek, about 25 kilometres from Gangtok, was first built during the reign of the fourth Chogyal, Gyurmed Namgyal. One of the biggest monasteries in Sikkim, the Rumtek monastery belongs to the Kargyud sect. The former Chief Minister of Sikkim, Kazi Lhendup Dorji, was at one time the Head Lama of this monastery.

After the Chinese occupation of Tibet, His Holiness the Gyalwa Karmapa, the 16th incarnate in the line, came to Sikkim with a number of disciples and followers. The Government of Sikkim presented a fairly big plot of land situated at a little distance from the Rumtek monastery to His Holiness for developing it as a centre for devotional practices.

During the reign of the fourth Chogyal, Gyurmed Namgyal, four monasteries, dedicated to Kargyud sect were built, one each at Ralong and Bhutia Busty in Darjeeling at the beginning of the 18th century.

### LANGUAGES

The Sikkim Assembly passed on October 12, 1977, by voice vote an official Bill seeking to declare Nepali, Lepcha and Bhutia as State languages for official purposes.

The legislation—the Sikkim Official Languages Bill, 1977—received support from all sections in the House.

Piloting the Bill, the then Minister for Legislative Affairs, Mr. B. P. Dahal, said the Government was giving attention to the development of the Limboo language, spoken by a section of people in the State.

At present, English is the official language of the State.

## 2. AGRICULTURE

THE TOTAL CULTIVATED area in Sikkim is about two lakh acres. In spite of initiating various measures to increase the per-acre production, the State continues to be dependent upon foodgrain import, ranging from 16,000 to 20,000 tonnes annually.

Despite the handicap faced by every hill state in enhancing cereal production, there is considerable potential in Sikkim for increasing the production, particularly of paddy, maize, wheat and barley, provided the cropping patterns are changed and scientific methods of cultivation adopted.

The principal crops grown are : maize, paddy, millet, wheat, barley, cardamom, apple, potato, oranges, buck wheat, pineapple and banana.

Domestic animals in Sikkim include cattle, buffaloes, yaks, sheep, goats, pigs, mules, ponies and poultry.

According to the 1961 census, the State had a population of 1,62,189, of whom nearly 96 per cent lived in the rural areas.

Even with the rise in population in the subsequent census report in 1971 (population 2,09,843) and in the years that followed, the dependence of an overwhelming majority of the people on agriculture continues.

Sikkim has vast potential for the development of fruits and vegetables. Development in these directions, since the State joined the national mainstream, has gone a long way in improving the economic conditions of the rural people who constitute 96 per cent of the total population.

Monocropping has been the tradition, though the rainfall pattern favours multiple cropping. By proper manipulation of sowing time, crop varieties like wheat, barley, potatoes, mustard and green vegetables can be grown successfully during the winter

season when traditionally more than 80 per cent of the land is kept fallow.

A beginning has already been made in this direction. During the 1978-79 financial year, efforts were made for launching a crash programme to bring the fallow land under the plough during the winter season with the object of covering 50 per cent of such land under multiple cropping programme in the next five years.

At present, the total acreage under high-yielding varieties and their package of practices is less than 10 per cent of the total area. To improve the position, concentrated attention is being given to bring more areas under improved cropping technology. Towards the achievement of this goal, action for the identification of suitable varieties for different agro-climatic situations has been initiated at the regional centres and sub-centres.

Fruit crops, particularly the orange, guava, pear, plum, peach, lime and lemon, apple and banana, have a great scope for large scale cultivation.

Presently, the total area under fruits is 3,000 square acres. But with an adequate attention it is possible to increase the acreage manifold within a short period of time. There is a proposal to make available various kinds of fruit saplings at highly subsidised rates.

Sikkim can grow a large variety of vegetables almost throughout the year at different altitudes. Besides, the climate of the State is quite favourable for the production of quality seeds of many types of vegetables, including cauliflower and cabbage.

The important cash crops of Sikkim, excluding orange, are cardamom, ginger and potato, with cardamom occupying the largest area of about 20,000 acres. These crops constitute the mainstay of the State's agricultural economy, and efforts



are under way to improve the production of these crops as also to increase the area under them.

Cultivation of crops is confined to steep slopes in most of the agriculture land. More than 50 per cent of the total cultivated area is untterraced and without any measures for soil conservation. In view of this, greater emphasis is being laid on taking up soil conservation measures covering large areas.

The State Government is aware that proper linking of production with marketing has to be ensured to induce cultivators for taking up improved production practices. Consequently, a "Growers' Association" for marketing of vegetables and apples has been formed on an experimental basis. The response of the farmers, benefiting from this experiment, has been encouraging and more of such associations will be formed to cover other areas and crops.

In 1977-78, land was acquired to set up nine regional centres and five regional sub-centres. Besides, seed multiplication of maize, paddy, wheat and millet has been taken up on 400 acres.

The State Governor, Mr. B. B. Lal's 1978 Republic Day message sums up the progress achieved since 1975 on the agriculture front.

"More remarkable perhaps has been the transformation which has overtaken the rural scene. Since almost 90 per cent of our people live in the villages and 'busties' of Sikkim, the State Government has rightly laid maximum emphasis on economic and social development in rural areas.

"Lands which have never known a second crop being grown on them in a year, are now being rapidly transformed into double-cropped areas. The use of high-yielding varieties of seeds and fertiliser is pushing up agricultural yields; minor and medium irrigation projects are being executed in different parts of the State to help in increasing agricultural production.

“Horticulture has been given a big push and thousands of orange, apple and other fruit plants, of good varieties, are being distributed among farmers every year. The breed of milch cattle is being improved.”

This optimism on agriculture front is reflected from the State Government's subsidy to protect the soil from erosion and to retain its fertility. In 1978-79, 900 hectares of land were slated to be brought under irrigational facilities through minor irrigation projects and additional 2,800 hectares through medium irrigation. More importance is being given to horticulture and marketing of vegetables and fruits on cooperative lines.

The programme for breeding improved cattle and milk marketing has been intensified. For increasing the production of wool, meat and eggs, corriedale rams and improved varieties of birds are being distributed to the farmers.

By the end of this year, the number of existing 48 cooperative societies, including fair price shops, will be raised to 72. Besides meeting the credit requirements, the cooperative societies function as retail outlets from where essential commodities can be bought by the villagers. To consolidate and amend the law relating to cooperative societies in Sikkim, the Sikkim Cooperative Societies Act, 1978, has been passed by the State Assembly and enforced.

In 1977, as many as 45 villages in Sikkim were electrified, and in 1978 an additional 47 villages were covered.

## PLANTATIONS

There are two places in Sikkim—Temi and Kewzing—where tea has been cultivated. A Tea Board under the control of the State Government is in charge of the day-to-day administration of the tea gardens. During 1978-79, a full-fledged modern factory for processing black tea was commissioned at Temi.

Apart from tea, the Sikkim Government is intending to take up, on an experimental basis, the cultivation of coffee. The Coffee



Board has put forward this suggestion. It has been pointed out that certain areas of south and west Sikkim, where oranges grow in abundance, are extremely suitable for coffee cultivation. A preliminary survey has already been made by State officials, and it is intended to plant at least 100 acres with coffee for the coming year. In fact, a sum of Rs. 2 lakh was set aside in the draft annual plan for 1978-79 for the coffee plantation.

### **LAND REFORMS**

The State Government has taken up the survey and settlement of the agricultural land in order to initiate a meaningful programme of land reforms. The implementation of this scheme commenced in the latter part of the year 1975-76.

In the next year, 15,000 hectares of land, out of an estimated 1,62,000 hectares to be surveyed, was covered. In 1977-78, the target was 31,000 hectares and in 1978-79 the number of survey teams was increased from 75 to 100.

The Sikkim Land Reforms Bill was passed by the State Assembly in March 1977.

### **MINOR IRRIGATION**

The minor irrigation schemes in Sikkim, compared with those under this category in other States, are much smaller in dimension. The minor irrigation schemes in the State usually cost up to Rs. 1,500 per acre. An outlay of Rs. 80 lakh was earmarked for minor irrigation in 1979-80.

### **ANIMAL HUSBANDRY**

Within the agricultural sector, the animal husbandry programmes have special significance in a hill state like Sikkim. During the first two years of the Fifth Five-Year Plan, the infrastructure for animal health, extension and commercialisation has already been built up. In the annual plan for 1979-80, a total outlay of Rs. 72 lakh was proposed for animal husbandry and dairy development in Sikkim.



**DAIRY DEVELOPMENT**

The main programme of dairy development, including milk marketing, has been taken over by the Sikkim Livestock Development Corporation. There are a number of centres in the State, where there is potential for setting up cottage cheese units. This would facilitate the conversion of milk for which there is not much demand owing to difficulties in transportation and scarcity of population.

One of the achievements of the State Government has been the setting up of a milk chilling plant near Gangtok for the supply of bottled and pasteurised milk, mainly for the inhabitants of the State capital. This has come as a boon to the people needing unadulterated milk prepared under hygienic conditions. The additional advantage of the scheme is that owners of milch cattle, within a radius of about 12 kilometres from Gangtok, have no marketing problems. The Animal Husbandry Department sends its own vehicles and the quality of milk after being checked on the spot is bought directly for the chilling plant.

**POULTRY DEVELOPMENT**

Poultry breeding has gained in popularity in Sikkim, particularly in the rural areas. In the 1978-79 annual plan, there is a provision to set up poultry farms having a capacity of 500 birds each in each of the district veterinary hospitals at four district headquarters.

**FISHERIES**

Sikkim has vast fishery resources, ranging from the high altitude cold water system to the tropical waters in the lower zones. A fishery wing under the control of the Forest Department was established for the first time during 1976-77 to exploit the existing fishery wealth and develop the inherent potentiality in inland fisheries.

**PIGGERY DEVELOPMENT**

Since breeding pigs is one of the most important farm activities in the State, additional impetus and financial support is

being given to a piggery development scheme during 1979-80 annual plan. Under the scheme, small breeding units and demonstration centres would be set up. As much as Rs. 6.30 lakh were set aside in the annual plan for the piggery development during 1979-80. A pork processing unit, for which machinery has already been obtained, will be made functional during the year.

### **VALLEY OF RICE**

Since agriculture is the mainstay of Sikkim's economy, the main thrust of the policy of the Government is towards boosting agricultural production. Towards the achievement of this objective, farmers are given generous help not only by way of chemical fertilisers, pesticides, seeds and extension services, but also in marketing their products. The Growers' Association gets transport facilities and technical know-how from the Department of Agriculture.

The State Assembly enacted in 1975 the Sikkim Cultivators Protection (Temporary Provision) Act, conferring occupancy rights to tenants for the first time. With this historic enactment, the effects of development are now percolating to the lowest rung of the Sikkimese society—the tiller.

Denzong, the original name of Sikkim, means "Valley of Rice". Legend has it that paddy was first introduced in Sikkim by the famous Indian saint, Guru Padmasambhava, the patron saint.

### **DEVELOPMENT OF HORTICULTURE**

Fruits have great potential in Sikkim because of wider agro-climatic variations and mountainous topography. Fruits, like Sikkim Mandarin orange, have already established a name for their size, sweetness and quality. Realising the importance and potentiality of fruits, the Department of Agriculture has given special priority for their development. At present, the total area under various kinds of fruits is about 4,000 acres and it is possible to increase the acreage many times. Programmes have already been launched to bring large areas under fruit

cultivation. The target is to add 2,000 acres additionally every year.

### **SOIL RECLAMATION**

Soils of Sikkim are very acidic. For many crops this level of acidity is undesirable, resulting in low production, notwithstanding application of adequate fertilisers. Hence, it is of great urgency to reclaim such soils by liming.

Sikkim has extensive wealth of wild plant species, like edible mushrooms, ferns, bamboos and avocados. The Department of Agriculture is considering the possibilities of bringing such wild species into cultivation.

The ecological conditions of Sikkim favour production of various kinds of vegetables throughout the year and particularly during off-season which make it possible for the farmers to get better prices for their produce. Vegetables produced in Sikkim not only cater to the needs of the local population, but also are exported to the neighbouring markets, like Darjeeling, Kalimpong, Siliguri and far away Calcutta. There are plans to bring additional 2,000 acres under vegetables every year, covering the summer and winter seasons.

The Small Farmers Development Agency (SFDA), a Centrally sponsored scheme, is in operation since 1975. Under this programme many poor farmers have been deriving great benefits. This agency is meant for the improvement of economic conditions of the poor farmers by providing them subsidies for the loans given to them for income-generating schemes like cardamom plantation, ginger cultivation, orange rejuvenation, dairy and piggery.



### 3. FOREST WEALTH

**S**IKKIM IS WELL known for the variety of its fauna and flora. The natural vegetation can be considered as being characteristic of the three separate zones into which the State may be divided.

In the sub-tropical zone which extends up to 1,524 metres several varieties of bamboos, ferns, pandanus and orchids are to be found. Dense undergrowths and lush vegetation are typical of sub-tropical zone. Valuable trees like 'Sal' are also found.

In the temperate zone up to 3,962 metres and in the northern valleys, the land is covered by forests of cherry, laurel, oak, chestnut, maple, firs, pines and magnolias. The rhododendron becomes abundant from an altitude of 2,438 metres.

The snow line can be considered as starting from 4,276 metres. But below this one can still find juniper and rhododendron struggling for existence. The more gentle slopes at these high altitudes are often covered by a variety of beautiful flowers, like the primula, which add a touch of glorious colour to the grandeur of the mountainsides. Sikkim is noted for its floral wealth and an estimated 4,000 varieties of flowering plants and shrubs are found. Sikkim is a "botanist's paradise".

Forests of oak, laurel, maple, magnolia, alder and birch, followed by coniferous forests of fir, hemlock, spruce and rhododendron scrubs are the predominant vegetation of the temperate region.

In the alpine zone one finds blue poppies, aconite, gentians and medicinal plants of considerable pharmaceutical interest.

Sikkim is noted for its larger number of bird species, of which about 600 have been enumerated. As many as 600 species of butterflies have been recorded.

The main wildlife of Sikkim comprises the mountain sheep, Tibetan antelope, wild ass, musk-deer, panda, Himalayan wild goat, spotted deer and wild boar.

The Forest Department came into existence in 1908 and the late Chogyal Sidkeong Tulku was responsible for demarcating the reserve forests and organising the Department in its initial stage.

Later on, the Department developed over the decades. The major role of the Department till the middle of this century was mainly the protection and policing the natural resources. Due to increased demand for forest produce brought about by growth of population and all-round development, the Department had to be reorganised during 1953-54 and was placed under the charge of a Conservator of Forests, instead of Forest Manager.

The predominant role of forestry in a mountainous state like Sikkim is the protection of vegetation, conserving the soil and water resources. The following are some of the major forestry schemes under the development Plan :

- (a) Plantation
- (b) Medicinal herbs
- (c) Survey and demarcation
- (d) Buildings
- (e) Utilisation
- (f) Soil conservation

With a view to increasing the forest wealth of Sikkim, nurseries have been extended, departmental and avenue plantations carried out and 500 families of Taungyadars (forest villagers) are established.

Since loss of soil by erosion is severe in a hilly state like Sikkim, strict closures are adopted in forest slip areas and dragging and felling are prohibited. Intensive afforestation programme has been launched and engineering measures such as gully plugging, check damming and contour terracings adopted



in all slip areas. Soil conservation nurseries are expanded to provide a ready stock of fast growing and soil binding sapplings.

Sikkim—the home of the rare species of temperate orchids—has a great potentiality of exporting orchid cut flowers developed through the technique of tissue culture.

At Saramsa, 15 kilometres from Gangtok on the national highway to Siliguri, there is an Ipecac garden. The Ipecac plant (from Brazil) yields the valuable alkaloid emetine. The alpine regions are also rich in medicinal herbs like aconite, gentian, lycopodium, ephedra, jatamasi and podophyllum.

In view of the winter weather, Sikkimese orchid cut flowers are able to retain their freshness even up to a fortnight. This lends support to an expert opinion that Sikkim can earn in foreign exchange as much as Rs. 60 lakh annually by exporting orchid cut flowers.

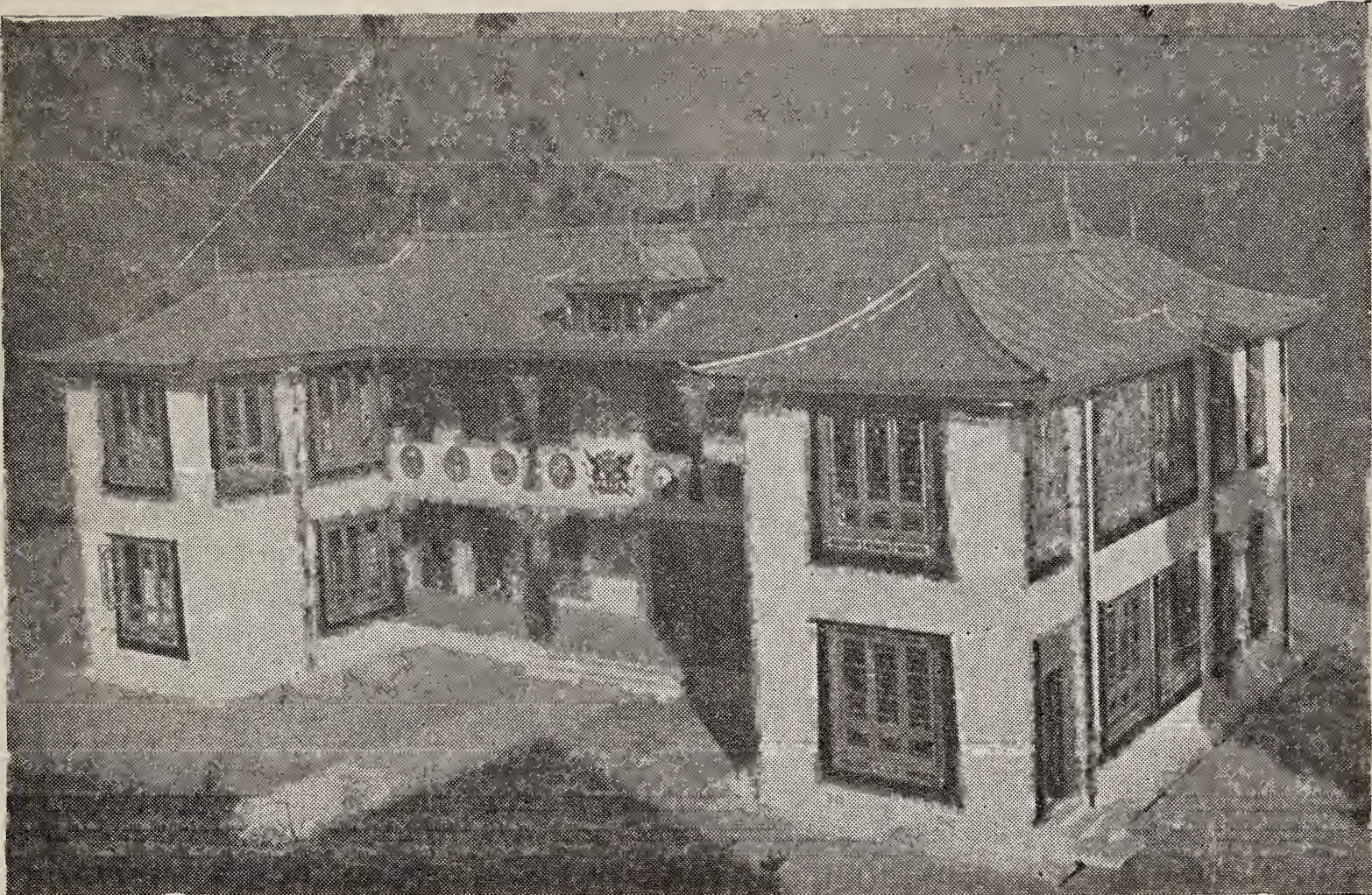
Cymbidium variety of orchids has been identified as being capable of being multiplied by tissue culture which originated in France in 1963.

At the Ipecac garden, covering six acres, a hothouse orchidarium pilot project was launched in 1975 for undertaking experimentation in various orchid species collected from far-flung Australia and Panama to nearby Burma, Nagaland, Manipur and Mizoram.

Most of the varieties were developed as mother plants and their progress watched by Forest Department officials at regular intervals in the first half of 1975.

Sikkim has totally banned the export of orchid plants since 1950 after an unsuccessful experiment with partial ban imposed at the turn of the century. At the Saramsa orchidarium, a rare variety of a plant—*Anthurium Andreanum*—belonging to the family of bananas has also been successfully developed. At the centre of the species, found in the Hawaii islands, there is a single red leaf with white spadix.





*The Development Building, recently constructed at Gangtok, to house the development departments of the State*

*The Bazar at Gangtok*

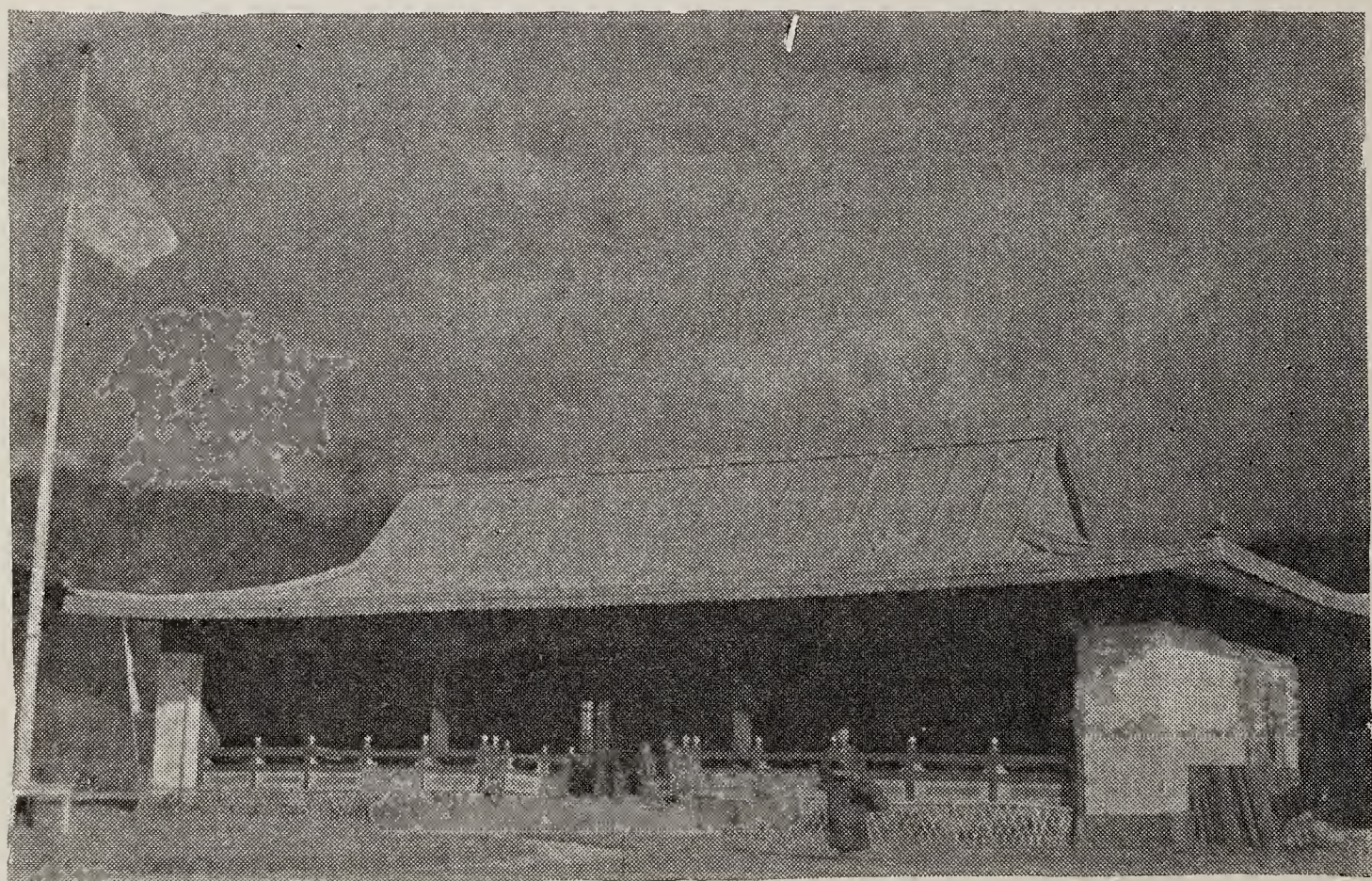






*A wayside shop 'en-route' to Changulake*

*A lamasery at the 2,133-metre-high Gangtok*







*Maitreya, a  
bronze study  
from Sikkim,  
12th-13th  
century AD*

MAITREYA  
GYALWA JAMPA





*The bridge over the Teesta on way to Gangtok*

*Ferns near Lachen, at an altitude of 2,438 metres*

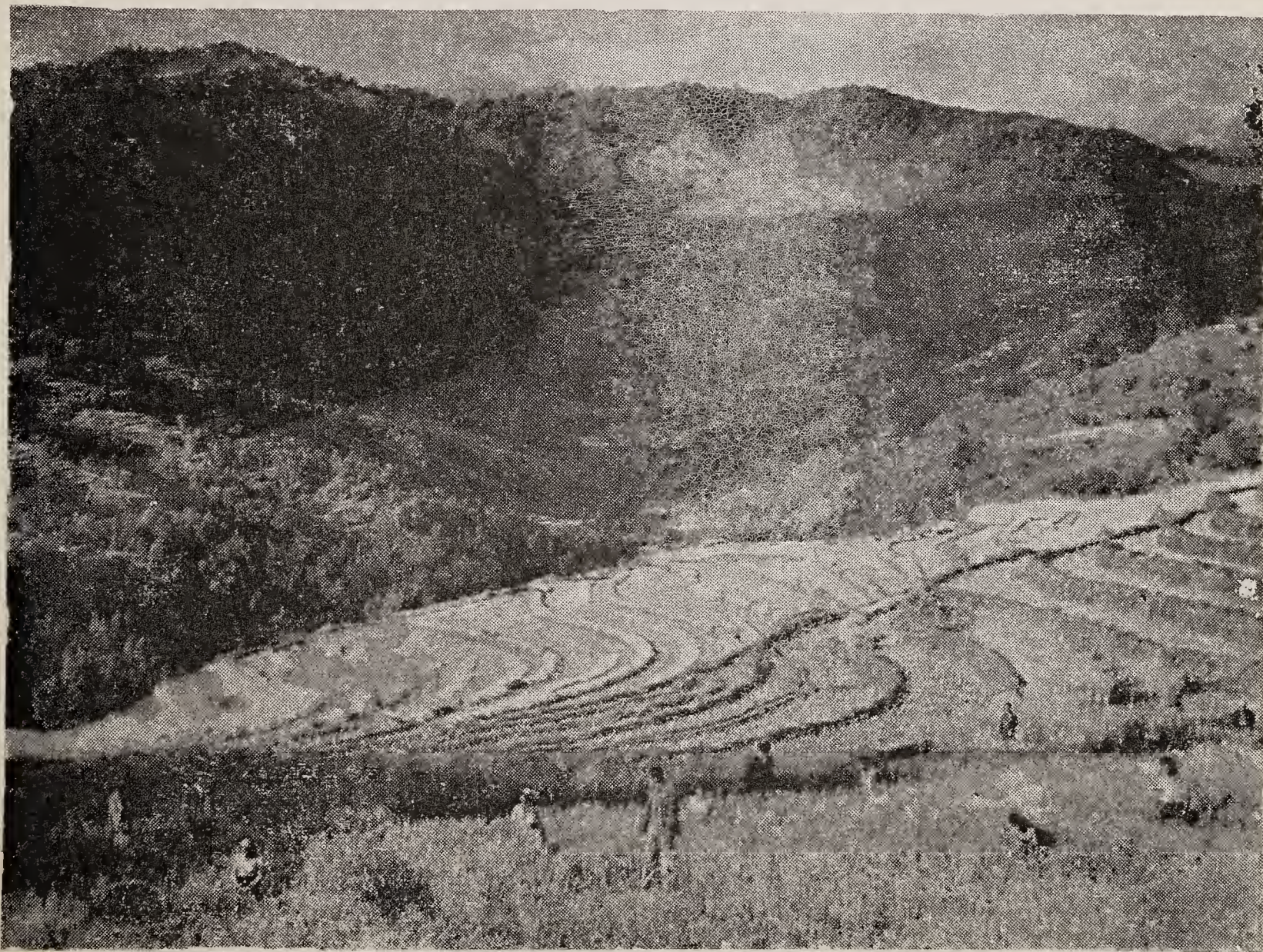






*Mules are the main means of transport in Sikkim*

*Terrace cultivation on Gangtok hillsides*







*New year celebrations in Sikkim*

*Mt. Kanchanjunga as seen from Namial Point near Gangtok*







*The image of the Buddha from a monastery in Gangtok*





*A Sikkimese boy*



**“LIVING FOSSIL” TREE**

Sikkim can claim to have one of the rare and ancient trees, termed by botanists as the “living fossil,” which dates back to the carbon age 60 lakh years ago. It is believed there is only one mature tree of this species in the Darjeeling Park. The home of this plant—*Ginkgo Biloba*—known in common parlance as the maiden fern tree, is Central Asia.

On maturity, the rare tree attains the height of 24 metres after 50 years. A three-metre tall plant, grown at the official residence of the Chief Conservator of Forests, is now adorning the rolling green slopes of the Raj Bhavan garden in Gangtok.

A day before relinquishing his office, India's Political Officer, Mr. Gurbachan Singh, planted the ancient tree on May 14, 1975. The new State of Sikkim, as the 22nd State of the Indian Union, came into existence on May 16, 1975.

The official residence of the Political Officer—an office created since 1889—was turned into the Raj Bhavan with Sikkim joining the Indian Union, following a referendum on April 14, 1975. A British Executive Engineer of Bengal Public Works Department, Claude White, occupied the office in 1889, although he was not designated as Political Officer. Mr. White held the office for 21 years.

**MUSK DEER**

Sikkim's forests in the north above 3,048 metres altitude are the home of the musk deer. The State Government is keen to preserve this rare species with twin objectives: to collect the musk for commercial purpose and to promote tourism.

As early as 1975, the State Government took steps to preserve the Sikkimese fauna. A Sikkim Government report also stressed the need for saving the Tibetan wild ass or Kiang, which inhabits the altitudes between 5,181 and 5,486 metres. Their number has dwindled to about 20, according to the report.

The report on forest resources of north coniferous forests of Sikkim (Lachen and Lachung sectors) called for a special body



to be set up for the protection of rare birds, including the European raven and animal species found in the region.

Species requiring protection were listed as: sunbirds, flower-peckers, woodpeckers, magpies, starlings, thrushers and babblers.

The report contains valuable information about the flora and fauna in Sikkim's northern region. "Intensive ecological surveys of birds and animals and their life cycles, breeding biology and population dynamics are necessary along with effective steps to protect and improve their habitat. Once their behaviour pattern is studied, the Forest Department can embark on major scheme for their propagation which is bound to yield rich dividends, both scenic and material," the report said.

The report—a product of two years of intensive survey—has forecast that north Sikkim offers a tremendous potential for the development of tourism as it is gifted with superabundance of rhododendrons, primulas and other luxuriant flora and fauna.

The population of Lachung and Lachen valleys, at an altitude of above 2,741 metres, is 4,000. Fishery development, particularly trout, at Yumthang and Yakthang near the Tibetan border, creation of musk deer farm, protection and propagation of other wild life and manifold forestry activities will pay rich dividends.

Yumthang has a hot sulphur spring, and the area is already open to Indian tourists on a restricted basis, while other districts of Sikkim have been attracting domestic and foreign tourists in large numbers.

In the north Sikkim region, one finds a number of small cat species, including marble cat and golden cat. Sikkim can also boast of a number of rare and beautiful forms of true pheasants—crimson, horned pheasant, blood pheasant and moonal. Besides, hill partridges and snow partridges are common in higher altitudes. Snow pigeon is also a common bird in the snow-bound regions in the north.

The report is an inventory of forest resources in north Sikkim, and has been carried out for the first time scientifically, covering a wide spectrum of aspects from estimation of timber to potential and utility of estimated stock.

Sikkim has an ambitious paper pulp project under consideration. The establishment of a medium-sized paper plant on which expert advice from a Scandinavian country has been taken, is closely linked with the exploitation of northern coniferous forests of Sikkim. The question of setting up the paper plant with the collaboration of the Hindustan Paper Corporation is still being vigorously pursued. But the investment decision is yet to be taken.

It has been estimated that the total coniferous timber stock in Lachen and Lachung sectors stands at 12.30 crore cubic feet, of which the growing stock available for felling is about nine crore cubic feet.

The survey came to this conclusion after covering a little over 21,000 acres of forest area in north Sikkim.

The underlying idea behind the various schemes, either being implemented or considered by the Forest Department, is that the exploitation of the forest wealth of the State should be conducted on scientific lines. Accordingly, the Forest Department has plans to take up the development of extraction method scheme. A large number of wood-based industries require forest produce as raw material and unless the extraction methods are improved the demands cannot be fulfilled.

The Forest Department proposes to construct logging roads and link roads to help logging operations in three reserve forest sectors.

#### **WILD LIFE PRESERVATION**

Recently, a full-fledged Wild Life Division was created in the Forest Department mainly to evolve measures for conserving the rich wild life in the State. The Government of India has

agreed to provide funds for the proposals in relation to the conservation of the musk-deer, panda and pheasant.

#### **MULBERRY PLANTATION**

The State Government has undertaken preliminary measures to start mulberry cultivation on a very large scale. One and a half lakh saplings have been distributed to farmers, some of whom have been trained in silkworm rearing at Kalimpong. These plantations will form the nucleus of a potential sericulture industry in Sikkim.



## 4. INDUSTRY AND MINERALS

**I**N PURSUANCE OF the economic policy of the Government of India, Sikkim attaches great importance to the development of small-scale and cottage industries. A number of measures have been taken for the establishment and development of small-scale industries. Industrial growth in Sikkim has been haphazard and uneven.

A Small-Scale Industries Directorate has been set up. A major thrust in this sector has been made by following a package of practices which include the construction of industrial estates and training young entrepreneurs and initiating them into the world of industry. Besides, the package of practices visualises granting incentives to industries and mothering new ventures in all respects.

The State Government, then headed by Kazi Lhendup Dorji, took up the question of extending concessions granted to industrially backward districts in the rest of the country, to Sikkim. This concession was readily given to all the four districts of the State.

The hire-purchase scheme of the National Small Industries Corporation, a Government of India undertaking, also applies to Sikkim. New small-scale industries are eligible to get both indigenous and imported machinery on hire-purchase on liberal terms from the Corporation.

Financial help to small-scale industries is also available up to Rs. 20,000 from the Directorate of Industries, Government of Sikkim, for projects involving investment up to Rs. 1,00,000. Besides, the State Bank of Sikkim, State Bank of India, Gangtok, and the Industrial Development Bank of India (I.D.B.I.) provide financial assistance.

The Government of Sikkim has adopted a liberal policy in regard to income-tax, sales tax, state excise and octroi. At

present, industries are exempted from payment of income-tax for five years from the date the industry goes into production. This concession, however, is subject to review as per policy of the Government of India. All industries are also exempted from payment of sales tax for a period of five years from the date of the establishment of the factory.

A composite Industrial Development Corporation, with an authorised share capital of Rs. 100 lakh, has already been set up. The present paid-up share capital is Rs. 7.30 lakh. The Corporation has initiated work on the supply of scarce raw materials and started providing financial assistance to new industries in the form of loans.

In the year 1978-79, the equity base of the Corporation was proposed to be enlarged by a further Rs. 5 lakh, primarily for the purpose of attracting refinancing facility through the I.D.B.I. A further sum of Rs. 5 lakh will be given on loan to the Corporation for providing loans to prospective entrepreneurs, including private hoteliers.

One joint venture unit for wood seasoning has already become operational. The State Government holds 51 per cent equity.

#### **SIKKIM TIME CORPORATION**

A unit fully owned by the Sikkim Government, in collaboration with the Hindustan Machine Tools, has already been set up for assembling 2.5 lakh watches per year. The present production averages 1,000 watches per day. The project report envisages a cost of Rs. 32 lakh, of which the bulk expenditure is already over. To complete the project, an additional provision of Rs. 5 lakh has been proposed.

#### **ROLLER FLOUR MILL**

The Government of Sikkim has entrusted to the Projects and Equipments Corporation a turnkey offer of starting a roller flour mill with a capacity of 30 tonnes per day to produce 'atta', 'maida' and 'suji'.



**MINING AND METALLURGY**

The State Government has been giving considerable importance to the development of mineral resources in the State in the light of promised good results achieved by the Geological Survey of India after preliminary exploration. A Department of Mining and Geology has been set up.

During 1978-79, the emphasis was on undertaking exploratory work in areas identified by the Geological Survey of India as potentially good for prospecting.

**SIKKIM MINING CORPORATION**

The Sikkim Mining Corporation at Rangpo is a joint venture owned by the Government of Sikkim and the Government of India. The Rangpo mine, nearly 20 years old, is producing mainly copper, zinc and lead concentrates. Efforts are now under way to locate sufficient reserves so that expansion programme may be undertaken to make the project economically viable.

The mine has been facing problems on account of the irregular power supply which has further affected the limited production. Since the power supply has improved with the commissioning of the Lower Lagyap Hydel project, the development and exploration aspects would be given special stress during 1979-80.

Sikkim may provide the final answer to India's copper deficit with the optimum exploitation of the State's mineral-rich copper-zinc project on the banks of the turbulent Dikchu.

Mining operations at Dikchu, 20 kilometres from Gangtok, have been going on for several years with tracks already installed in a number of tunnels (adits). Way back in 1908 a private firm of Calcutta carried out the first exploration at Dikchu. Subsequently, the Geological Survey of India undertook the work in 1950, followed by the Indian Bureau of Mines between October 1959 and June 1973.

Work on further exploration of the mine was taken up some years ago by the Sikkim Mining Corporation. The Indian Bureau



of Mines and Engineers India Limited have been appointed sub-consultants by the Sikkim Mining Corporation.

A polybase mineral, similar to the one found in Japan and Canada, has been discovered both at Dikchu and Rangpo on the West Bengal-Sikkim border. The complex ore body with eight to ten minerals had been found in the ore deposit at Rangpo. At Rangpo, there are mines which contain copper, lead and zinc, and the concentrator plant of a 100-tonne capacity per day is in operation. The copper concentrates are being sold to the Hindustan Copper Limited at Ghatshila in Bihar. India's oldest copper mine is located at Ghatshila.

Located in a gorge, the Dikchu project overlooks the swirling Dikchu and Leychu. The discovery of the polybase mineral at Dikchu is a new phenomenon in India's mining. Apart from the complex ore body found in the ore deposit at Rangpo, similar polybase mineral, which includes copper, lead, zinc, nickel and cobalt, had been discovered at Ambamata on the Gujarat-Rajasthan border.

#### **TUNGSTEN MINERAL INVESTIGATION**

Tungsten mineral investigation was carried out in 1977 in northern Sikkim in cooperation with the geological scientists of Jadavpur University, Calcutta. Tungsten-bearing rocks have been discovered near Lachen, Chungthang and Manual, near Mangan (district headquarter). These samples are now under laboratory tests.

#### **GRAPHITE**

The Sikkim Government has received reports from the Geological Survey of India, indicating that there are graphite deposits near Chitre in western Sikkim.

#### **POWER DEVELOPMENT**

The development of power in Sikkim is linked with the generation from a central sector scheme—the Lower Lagyap Hydroelectric Project.





*The Institute of Tibetology at Gangtok*

*A Lepcha dance number*

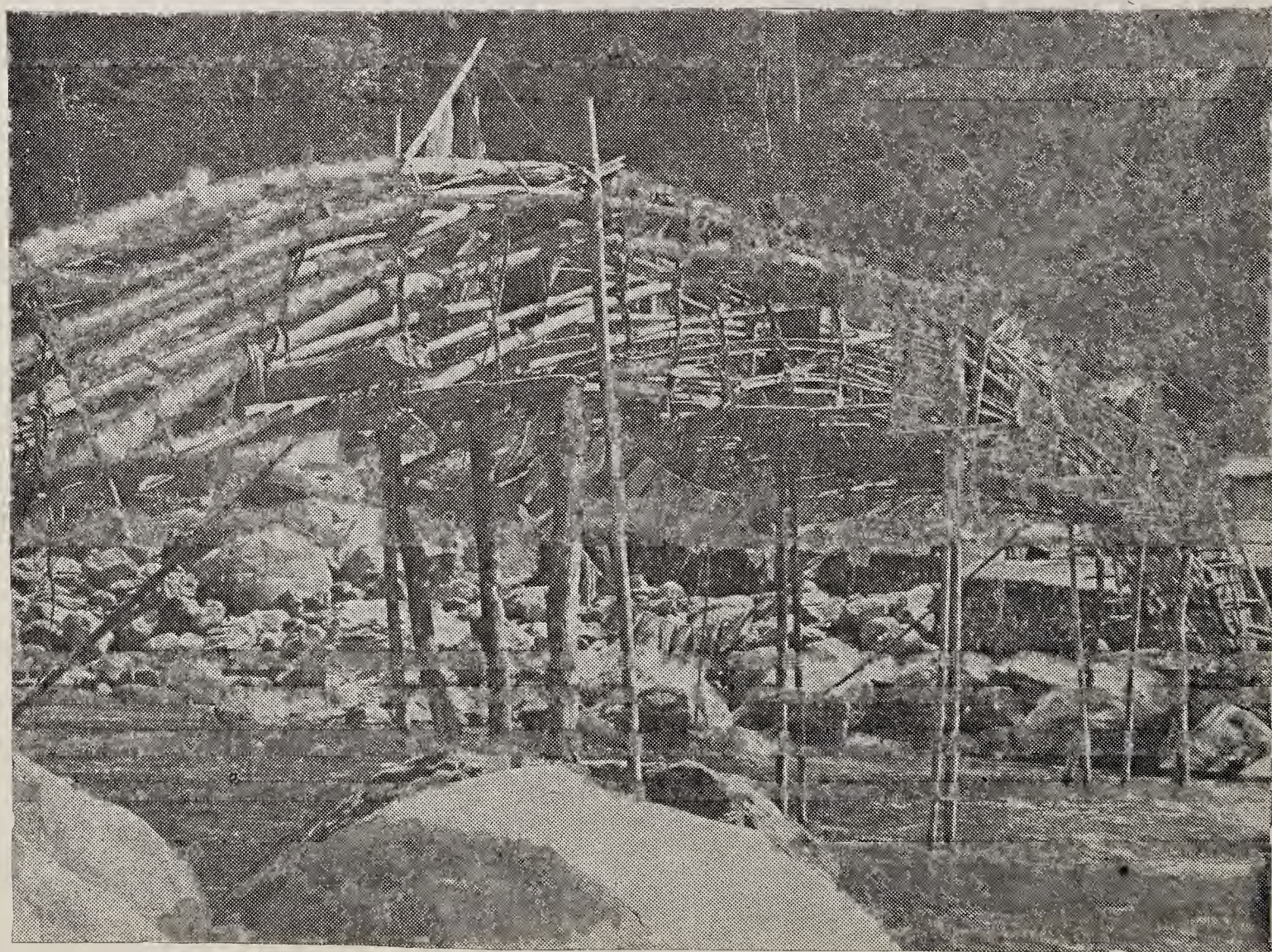






*Child care and immunisation programme are the important facets of the health services*

*A traditional arched bamboo bridge on a mountain stream*







*A typical house in sylvan setting*

*Limbo girls in their Sunday best*







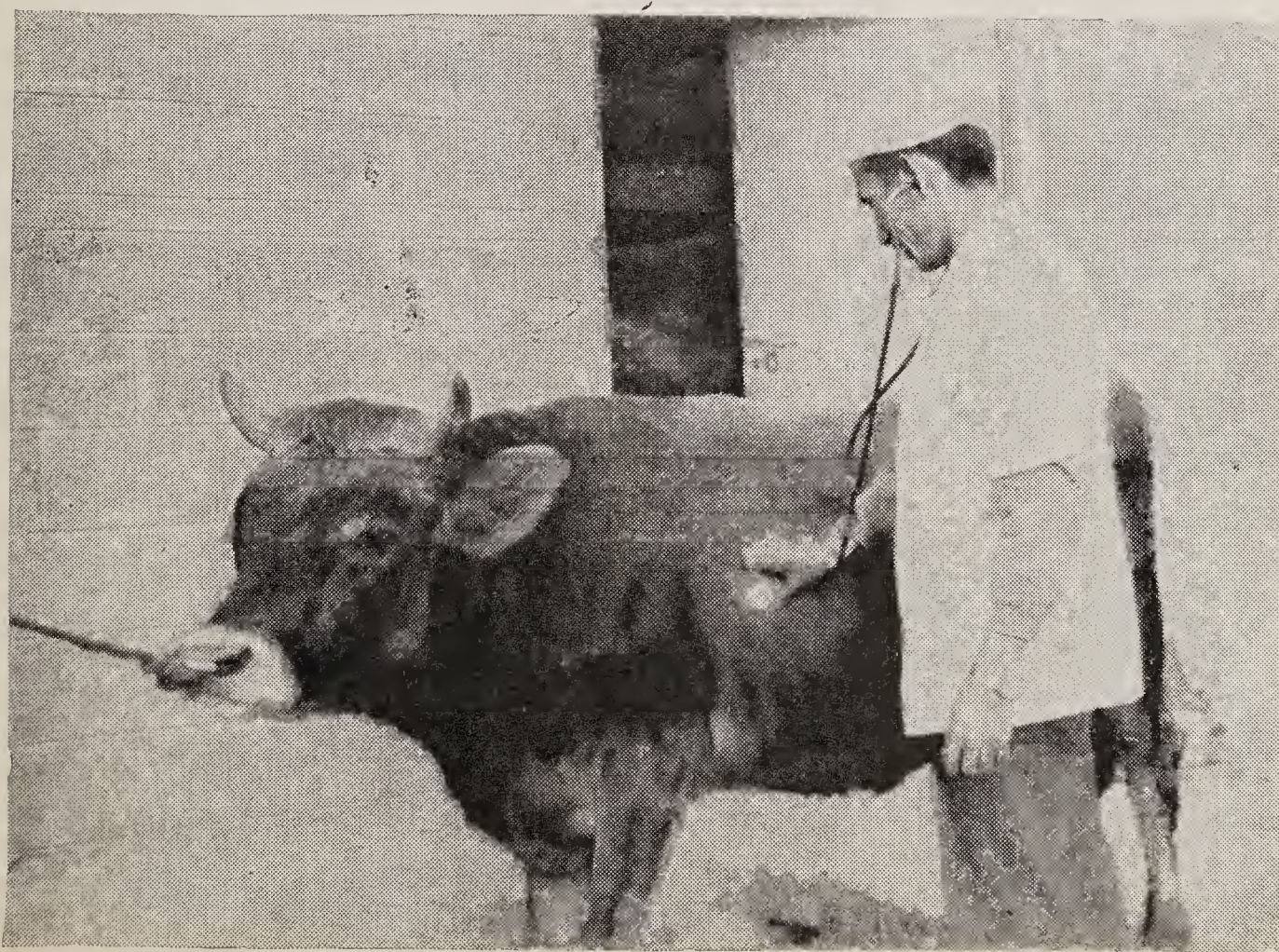
*A Bhutia girl  
in traditional  
dress*





*The watch assembly unit of the Sikkim Time Corporation*

*The animal husbandry and dairy development have been given added accent in the plans*







*Safe drinking water supply to eradicate water-borne diseases*

*A self-employment scheme in poultry farming*







*An embroidery and tailoring training class*





*School-children at P. T. display in Gangtok*



According to the scheduled programme, the project is expected to be commissioned towards the end of the financial year 1979-80.

Keeping this generation schedule in view, work is already under way to draw lines and construct sub-stations so that the electrification of rural and other areas can be synchronised.

In addition, a smaller generation scheme, which has already been taken up in the western part of the State, is expected to be commissioned by August 1979.

Under a scheme to transmit and distribute electrical energy in northern Sikkim, a 66 KV line is being drawn up to Dikchu and from there 11 KV lines will be drawn to reach the important centres in the northern parts of the State.

It is expected that the completion of the north Sikkim transmission line will coincide with the power generation from the Lower Lagyap Project. Another 66 KV from Lower Lagyap to Melli and from there to Kalimpong is also under construction. There is also a possibility to have a line from Melli to Jorethang, depending upon a 66 KV sub-station being built at Melli on the West Bengal-Sikkim border.

#### **FRUIT PRESERVATION FACTORY**

One of the oldest industries in Sikkim is the Government Fruit Preservation factory at Singtam. The factory is functioning as a commercial department. It was set up primarily for the purpose of the economic utilisation of the agro-products in the State.

The factory has been expanded and modernised in two phases to meet the growing demand of its products not only from within the country but also from major international airlines.

In the coming years, the accent will be on further consolidation of the factory's base and progressively expanding into other areas. The main objective of this thrust is to effectively utilise a larger quantity of oranges. The Government proposes to undertake a comprehensive study on the economic



viability of a poly-citrus plant. Based on this study, further steps would be taken.

The Singtam factory has also plans to study the possibility of setting up a unit for the manufacture of cornflakes from maize, the most popular and largely grown crop in Sikkim.

The Government's keenness to make the factory diversify its production is reflected in the allocation of Rs. 15 lakh in 1979-80 for organising research and other development work on a larger scale. Already, some work has been done on pectin manufacture from orange peels and on oleoresins from cardamom. In view of the potential of different lines of production, the research work will be strengthened.

With Sikkim joining the mainstream of Indian life after decades of isolation, a new vista has opened up. Sikkim is the only State in India where the per capita Central assistance on the Plan development is the highest.

There is a proposal to undertake a comprehensive techno-economic survey of the entire State for determining the industrial potential through the National Council of Applied Economic Research. A token sum of money has been allocated towards this objective in the draft annual plan for 1979-80.

In order to explore the areas, potentially suitable for starting industries, the State Government has already had survey reports prepared by the National Industrial Development Corporation. A few other noted institutions have also been approached for identifying suitable industrial areas.



## 5. ECONOMIC DEVELOPMENT

**T**HE SIKKIMESE PEOPLES' decision to join the Indian Union through a referendum on April 14, 1975, has both political and economic implications. This momentous verdict of the people followed the abolition of two institutions—Political Officer and hereditary monarchy.

During the entire period of the 334-year-old Namgyal dynasty, the people took a back seat. Their economic advance and well-being received low priority. For a total population of about 2.1 lakh in 1971, the monarchical rule could have achieved everything over three centuries. But this did not happen.

History has it that Sikkim was settled as early as the 13th century by the Lepcha migrants from the Assam hills, but it came into being as a political entity in 1642. In that year, Lama Lhaber Chhempo with the aid of other lamas converted the people of Sikkim to the Buddhist faith and appointed Phuntsog Namgyal to be the first king or Gyalpo. Thus came into existence the Namgyal dynasty.

While the British did much to open up Sikkim in the beginning, there were virtually no advances in the Sikkimese economy between 1907 and 1947.

Apart from the wide network of roads throughout the protectorate territory, Sikkim has over the past five successive five-year Plans built up a modicum of infrastructure for industrialisation on a modest scale.

The total outlay during the Fourth Five-Year Plan was Rs. 28 crore and the Fifth Plan envisaged an investment of Rs. 40 crore. Investments in both the State sector and Central sector have been going up from year to year. In the financial year 1979-80, an investment of Rs. 17.88 crore was planned in the State sector alone.



The enhancement in the outlay has become necessary in view of the acceleration of the economic development, following investments made in the first two years of the Fifth Five-Year Plan.

The three-year outlay, from 1976 to 1979, finalised by the National Development Council, proposed an investment of Rs. 39.64 crore. The expenditure in 1976-77 was Rs. 11.68 crore and expenditure in the year 1977-78 was Rs. 12.67 crore and the anticipated expenditure for 1978-79 was Rs. 15.80 crore.

Taking into account the State's estimated three lakh population, spread over a total area of 7,325 square kilometres, the per capita Plan investment in Sikkim is the highest in India.

The main economic activity is concentrated in agriculture and allied activities since a large percentage (as high as 96) of the population lives in the rural areas.

Keeping this in mind, there is a proposal to invest 28 per cent of the Plan outlay in the agricultural sector. The main cereal crops are maize and rice and the horticultural crops are orange and cardamom. Ginger and potato are also cultivated fairly extensively.

The main capital-intensive works are building, road and bridge construction, water supply, soil conservation, electrification, including transmission, and irrigation projects. These are intended to stabilise the benefits envisaged from investment in the crucial sectors.

For the first time, certain areas, which are specially backward, are to be identified and developed so as to raise the standard of living in very backward regions.

The expansion in Plan activities has necessitated the spread of Governmental organisations not only within Gangtok and the four district headquarters, but also in many of the remote areas in the State.



In the last ten years, an attempt has been made to generate an industrial climate within the State. For this, simultaneous development of the necessary infrastructure, in the form of power, communications and water supply, has also been taken in hand.

Industrial development, both on the small-scale and medium level, is being intensified. As far as resources are concerned, the State continues to be deficit on the non-Plan side and, therefore, there is no contribution from the State.

Out of the outlay of 15.80 crore, as much as Rs. 15 lakh are proposed to be financed through loans from the Life Insurance Corporation and Rs. 25 lakh as loan from the Rural Electrification Corporation. The L.I.C. loan will be used for housing purposes and the R.E.C. loan for rural electrification schemes.

The main emphasis laid in agriculture is to strengthen extension activities so that essential and modern inputs are utilised to gain optimum results.

Sikkim is deficit in foodgrains and consequently supplies are obtained every month through the Food Corporation of India. Increasing the food output is thus a principal objective of the Plan, and with this end in view multiple cropping is being encouraged.

More minor irrigation facilities are being provided and terracing of fields taken up in selected areas so as to make the land more productive. Animal husbandry activities, particularly cattle rearing and piggery farming, are usually combined with crop husbandry in the State. The mixed farming concept is thus a workable proposition in the State, and is being encouraged.

In any scheme of giving a boost to the State's economy and carrying out development plans, agriculture occupies the prime position. Before the advent of democratic revolution in Sikkim, its agrarian economy was almost stagnant and primitive, subsisting on outmoded traditional practices.



The total cultivable land in the State is about 2 lakh acres. The first step the previous Government, led by Kazi Lhendup Dorji, took was to work out plans to increase the irrigation potential through a two-pronged drive of launching minor and medium irrigation projects.

Officially, it has been claimed that Sikkim will soon be on the threshold of a white revolution. Already a milk production and processing plant, costing over Rs. 1.5 crore, is in operation at Gangtok.

A close look at the Plan provision for 1977-78 and 1978-79 and the Planning Commission's acceptance of the recommendation of a working group for 1979-80 would convince even a layman how Sikkim is progressing in an assured way.

Take the case of power development programme for which the 1977-78 Plan allocation was Rs. 75 lakh. This has been stepped up to Rs. 1.35 crore for 1978-79 and Rs. 1.60 crore in 1979-80.

Fisheries got a share of Rs. 7 lakh in the Annual Plan for 1977-78. It was increased to Rs. 15 lakh for the year 1978-79 and Rs. 17 lakh in 1979-80.

The highest allocation of Rs. 3.5 crore was made by the Planning Commission for Sikkim's development of roads and bridges during 1978-79, as against Rs. 3.1 crore in the previous year. In the year 1979-80, the outlay was Rs. 3.90 crore.

Medical, public health and sanitation received greater attention last year with an outlay of Rs. 70.70 lakh, as against Rs. 60 lakh in 1977-78. The outlay for 1979-80 was Rs. 69 lakh.

On housing, Sikkim spent Rs. 40 lakh during 1978-79, compared to Rs. 31 lakh in the previous year. The outlay for 1979-80 was Rs. 40 lakh.

For the spread of general education, as much as Rs. 1.14 crore was spent last year, as against Rs. 81 lakh in the previous year. The outlay for 1979-80 was Rs. 91 lakh.



Minor irrigation's share in the planned development went up from Rs. 26 lakh in 1977-78 to Rs. 48.50 lakh during 1978-79. The outlay for 1979-80 was Rs. 100 lakh.

Road transport, another important constituent of an industrial infrastructure, was allocated Rs. 50 lakh in 1978-79, as compared to the previous year's Rs. 30 lakh. The outlay for 1979-80 was Rs. 50 lakh.

A study of the Plan allocations reveals a departure from the earlier pattern in as much as the emphasis has now shifted to agriculture and allied services, claiming a total of Rs. 4.58 crore in 1978-79 and Rs. 5.78 crore in 1979-80.

With the basic infrastructure well laid for an all-round development during the first four years of statehood (May 16, 1975-May 16, 1979), Sikkim is now poised to make rapid strides in its endeavour to catch up with the rest of the country.

The Planning Commission's approved outlay of Rs. 17.88 crore for 1979-80 would be met by way of 90 per cent grant and the rest as loan. This represents an increase of 27 per cent—the largest allocation to any State—over Rs. 12.45 crore outlay for the previous year.



## 6. EDUCATION AND SOCIAL WELFARE

**O**RGANISED MODERN EDUCATION in Sikkim is comparatively a recent phenomenon. With the ushering in of a popular rule, Sikkim has been witnessing a virtual revolution in education.

The demand for education is steadily growing in Sikkim and the enrolment of boys in various educational institutions went up from 21,868 in 1976-77 to 29,308 in 1978-79.

During the same period, the enrolment of girls went up from 10,411 to 16,450, bringing the total enrolment of students to 45,758, as against 32,279 in 1976-77.

The extension of educational opportunities to every child in the age group 6-14 has been one of the principal goals of educational planning in Sikkim. While the enrolment in the primary stage (classes I to V) was about 18,000 in 1975, it has exceeded 39,000 in 1979, registering an increase of more than 116 per cent.

According to the State's former Minister of Education, Mr. B. P. Dahal, "this figure is more than 100 per cent of the estimated child population in the age group 6-11. It is a fact that the goal of universalisation of education for children in the age group 6-11 is achievable during the course of the next few years."

The enrolment at the junior high school stage (classes VI-VIII) increased from 2,100 in 1975 to 5,168 in 1979. The rapid rise in enrolment indicates that the programmes initiated by the State Government are bearing fruit.

Expansion of schooling facilities and the sharp rise in enrolment at every stage of education has necessitated increase in the strength of the teaching personnel by more than 50 per cent from about 1,200 in 1975 to 1,919 at the end of 1978.



The expansion of educational facilities is also reflected in the stepping up of financial provision for the purpose.

The Plan expenditure on education rose from Rs. 63.95 lakh in 1975-76 to Rs. 99 lakh in 1977-78. For the year 1978-79, the outlay was Rs. 133.6 lakh and for 1979-80 it was 391.0 lakh.

Non-Plan expenditure has also shown a steep rise from about Rs. 37 lakh in 1975-76 to more than Rs. 73 lakh in 1977-78. The outlay for 1978-79 was Rs. 1.35 crore and for 1979-80 was Rs. 2.10 crore. This is more than  $5\frac{1}{2}$  times what it was five years ago.

In Sikkim, there is a serious shortage of qualified teachers. In order to ensure a regular flow of qualified teachers, the State Government has established a full-fledged State Institute of Education.

To bring education within the easy reach of the common man, the State Government has made education free for boys up to the end of the junior high school stage and for girls up to the higher secondary level.

In order to reduce the burden of books on the parents, the State Government purchases textbooks needed for primary and junior high schools in bulk from publishers and makes them available to the children at half the cost.

These subsidised books are distributed for sale through the District Education Officers and school campuses. Though no primary school is beyond a radius of two kilometre from any village, schools of the post-primary level are not located within such easy reach.

Sikkim has launched a scheme of free boarding for children of the weaker sections to study in junior high, high and higher secondary schools. This facility is open to good students belonging to the weaker sections, and has contributed greatly to the expansion in enrolment figures.



Essential minimum physical facilities are indispensable for improvement in quality education. Very few primary, and even junior high schools, had worthwhile buildings before the merger of Sikkim into the Indian Union in 1975. Libraries, laboratories and science equipment were practically non-existent.

During the past three years, a good deal of attention has been paid to provide these facilities. The State's former Education Minister has said that "Sikkim is one of the few States which can boast of attractive school buildings at all stages of education—from primary to higher secondary."

Supply of drinking water to schools has all along been a major problem in Sikkim. With the help of the Rural Works Department, the supply of drinking water is being made to an increasing number of primary schools.

The Rural Sports Scheme has also been integrated with the School Sports Scheme. The integration of these activities of the schools with the programmes relating to rural development has evoked enthusiasm among the local community.

With the aid of the United Nations Children's Emergency Fund (UNICEF), science kits have been provided to almost 60 per cent of primary schools and 70 per cent of junior high schools. The UNICEF is also associated with other programmes of safe drinking water supply and nutrition.

A remarkable achievement of the State Education Department has been the production of school textbooks in Nepali, Tibetan, Lepcha and Limbu languages. A textbook unit has been established under the Education Directorate. Language experts have been appointed. Textbooks prepared in Nepali and Tibetan languages are meant for use in classes I to XI, and these textbooks have been approved by the Central Board of Secondary Education to which the schools in the State are affiliated.

Textbooks in Lepcha and Limbu languages have been produced for use in Classes I to VII. Besides textbooks,



dictionaries in Lepcha, Limbu and Tibetan languages have also been prepared by the textbook unit of the Directorate.

The facilities for higher education was practically non-existent in Sikkim prior to 1975. An evening college was started in 1972. Now a degree college, affiliated to the North Bengal University, has been functioning since September 1977. The college provides education in all the three streams of education—science, arts and commerce. The State Government is providing adequate funds to this college to develop into a full-fledged institution for catering to the needs of the State in respect of liberal education.

In September 1975, an elaborate programme of non-formal education was launched in Sikkim with assistance from the Centre. Within a span of three and half years, 424 sub-centres have been opened. These centres are catering to continuing education of school dropouts. The enrolment in these institutions exceeds 13,000, and the number of teachers working part-time in these sub-centres is about 430.



## 7. HEALTH

**T**HE GOVERNMENT OF Sikkim inherited an unbalanced health service system from the feudal regime before its integration with the Indian Union. Nevertheless, it soon took steps to evolve a revised approach, designed to create a modern integrated health service with a strong rural base, adequate referral facilities and an administrative machinery to render curative, preventive and educative services to the people. The new framework of health services is based on primary health centres and sub-centres as are in existence in the rest of the country.

Preventive measures have been taken to combat malaria, smallpox and tuberculosis. As a result, smallpox has completely disappeared and the number of malaria cases declined considerably.

### **RURAL HEALTH SERVICES**

Till recently, Sikkim had only small dispensaries in the rural areas, with compounders in charge. Under the Minimum Needs Programme, the State has established primary health centres and sub-centres in the rural areas. There is a target of 15 primary health centres and 24 sub-centres to cover the entire population.

Poor drinking water facilities and practically non-existent environmental sanitation add to the problems of providing rural health services in Sikkim. While a good beginning has been made to provide rural health services, the State is yet to go a long way to cover the population scattered over the isolated mountainous terrain. Four of the primary health centres have already qualified for the UNICEF assistance.

### **FAMILY WELFARE PROGRAMME**

According to the statistics available, the population growth rate in Sikkim is by no means alarming. On the other hand,



the rate of infant mortality is on the high side. This partly explains why the people are not very keen to accept sterilisation as part of the family welfare programme.

A health education cell is already operating. It is to be converted into a State Health Education Bureau. The programme of health education is catching up and has been gradually extended to the rural areas also. Health educators have been sent for certificate course and on their return to the State they have been doing useful work.

### **COMMUNICABLE DISEASES**

Water-borne diseases constitute the main problem in Sikkim. The State Government has also taken up a programme to provide safe drinking water and improve the environmental sanitation. Simultaneously, the programme of immunisation has been taken up with the help of the Central Government.

From its own resources, the State Government proposes to take up the school health programme which would improve the services of immunisation. Until now, the State has not been able to take up BCG vaccination for want of necessary inputs and technicians. The infrastructure needed to control tuberculosis is practically non-existent, although the incidence of TB is fairly high. This is understandable in the context of the State's general backwardness and absence of any training centres for para-medicals. Sikkim does not have a medical college. In fact, there are a number of States and Union Territories in the north-eastern India which do not have medical colleges.

### **NUTRITION**

Two of the four districts in the State are at present covered by the Integrated Child Development Scheme (ICDS). Under this scheme, the supplementary nutrition programme forms the most important link. The beneficiaries are provided with biscuits which are fortified with soyabean.

Under a special nutrition programme, distribution takes place for 290 days in a year. Apart from the special nutrition programme, which is part of the ICDS, the State has also



undertaken a programme of feeding school-going children at the primary level. There is also an applied nutrition programme (ANP) block in the State. The 1978-79 development programme of the State had a budget of Rs. 21.50 lakh for carrying out special nutrition programme, midday meals for school-children and applied nutrition programme.

Sewerage and water supply accounted for additional Rs. 64 lakh for the year ending March 31, 1979. Besides, a sum of Rs. 4.30 lakh was earmarked for social welfare.

Under the programme for school-children, it is proposed to cover 15,000 beneficiaries. The pattern of feeding is the same as in the case of special nutrition programme.

In 1978-79, a provision of Rs. 9 lakh was made for pre-school children and pregnant and lactating mothers and in 1979-80, Rs. 12 lakh were set aside for this purpose.

A full-fledged Social Welfare Department was created for the first time in 1976-77. Following the birth of the Department, a State Social Welfare Board was created. Between these two organisations, the welfare of the weaker sections of the community is now being handled in a systematic manner.



## 8. ARTS AND CRAFTS

COTTAGE INDUSTRY IS an important sector of Sikkim's economy and the State Government has placed a high priority for its development.

Ever since Sikkim joined the Indian Union in April 1975, arts and crafts have received a boost. There is a Department of Art and Culture, which is responsible not only for the promotion of culture in the State, but also for the preservation of the cultural heritage of Sikkim.

During 1978-79, special attention was paid to renovate some of the Buddhist monasteries which have been decaying due to lack of funds. A provision of Rs. 14 lakh was earmarked in the 1978-79 budget for the renovation work.

The Sikkimese art draws its inspiration from Buddhism. As such, there is great resemblance with the Tibetan art. One finds the dragon motif not only on the hand-woven carpets, but also on the exquisitely carved wooden furniture. The intricately carved tables called 'Choktses', the wondrous wooden screens, the jewellery items, cane work and selective drift woods are some of the artistic products of Sikkim.

The Government Cottage Industries Institute, located at Gangtok, is a shining testimony to the State peoples' artistic ability in various fields. Apart from carpet weaving, the institute provides training in making handloom products. The training courses range from doll-making to beautiful carpentary work.

The beautiful hand-woven woollen carpets with traditional Sikkimese motifs and unique designs and combinations of rich colours will convince anyone of the Sikkimese peoples' artistic sensibility. Other *objets d'art* are the Sikkimese woollen blankets, shawls, jackets and a wide variety of fashionable garments to suit the mod taste. Leather goods, "thankhas"



(traditional tapestry) and dolls are some of the products of the institute.

### **INSTITUTE OF TIBETOLOGY**

The Institute of Tibetology, located at the outskirts of Gangtok, is dedicated to the cause of furthering the Tibetan studies. It has a lavish interior, decorated with murals, ornate wood-carvings, altars holding images of the Buddha, Bodhisattavas and Tantric deities. It contains a vast library of Tibetan books and rare manuscripts. There are also over 200 icons, prized objects of art and rare 'thankhas'—a collection which has won international acclaim.

The Royal Charter of Incorporation (October 28, 1958) defined Tibetology in the following words: "The word 'Tibetology' is used as a convenient and conventional term meaning the study of Chos (Dharma), the culture and all arts and sciences associated with Chos. Tibetology has thus, linguistic and cultural connotations, not limited to any regional boundaries."

The foundation-stone of the institute was laid by the Dalai Lama on September 10, 1957. It was declared open by Pandit Jawaharlal Nehru on October 1, 1958.

The institute building is one of the most imposing monuments in Sikkim. It is a splendid example of Sikkimese architecture with pagoda-like galvanised iron roofs.

Although Buddhism has been consolidated as an established religion in Sikkim during the years immediately proceeding the coronation of Phuntsog Namgyal, it has continuously influenced the former Chogyals through 12 generations.

The monastery at Tashiding, in the centre of Sikkim, is considered to be the most holy, and it is here that the annual Bumchu festival is conducted. Hundreds of pilgrims from within Sikkim travel to Tashiding to participate in the ceremony which, in terms of the Sikkimese calendar, is held on the 15th day of



the first month of the year, the occasion being calculated to coincide with the full moon.

One of the biggest monasteries in Sikkim is located at Rumtek. The monastery has been built with a style adhering strictly to the traditional architecture. Here lives the 16th reincarnate, His Holiness Gyalwa Karmapa, head of Kargyupa sect of Tibetan Buddhism. Rumtek monastery has been patterned on the lines of the lamaseries of Tibet.



## 9. TOURISM

**T**OURISM RECEIVED CONSIDERABLE fillip in Sikkim after it became part of the Indian Union. Recognising the vast potential for attracting tourists to the State, the Government from the beginning of the Fifth Five-Year Plan started building the infrastructure. Hotels, transport and cafetaria were given priority in the State's plan allocation.

In the first two years of the Fifth Plan, a programme of constructing tourist hostels in Gangtok and elsewhere proceeded briskly.

During 1978-79, the strategy was to build up further tourist facilities. Perhaps few other States in India are endowed with so much of natural beauty as Sikkim. The mysticism of Sikkim is evoked partly by the grandeur of its natural beauty. Steeped in many legends, Khangchendzonga is revered, feared and worshipped by all. The Khangchendzonga mountain is guarded by a deity of that name.

To cater to the increasing tourism in Sikkim, the Government has constructed tourist lodges and cheaper tourist hostels. One such lodge is located at Pemayangtse, close to the old monastery at a height of 2,085 metres. The view of the mountain range from Pemayangtse is perhaps one of the finest. Pemayangtse is an ideal base for those who would like to explore the unspoiled charm of the neighbouring spots like Yuksam and Dzongri.

For the first time, Dzongri (altitude 3,962 metres) has been opened to tourists. Dzongri offers the most fascinating close-up view of the Khangchendzonga massif.

Yuksam is a historical spot amid the beautiful Himalayan scenes. It was here that the first ruler of Sikkim was crowned and given the title of the Dharamaraja in 1642 A.D.



The tourism budget for 1978-83 is Rs. 1.5 crore. With the increase in the number of tourists, both domestic and foreign, it has become necessary to arrange conducted sight-seeing tours. So far, such tours have been confined to Gangtok and its environs only. This is to be progressively extended to places like Yuksam, Pemayangchi and other places.

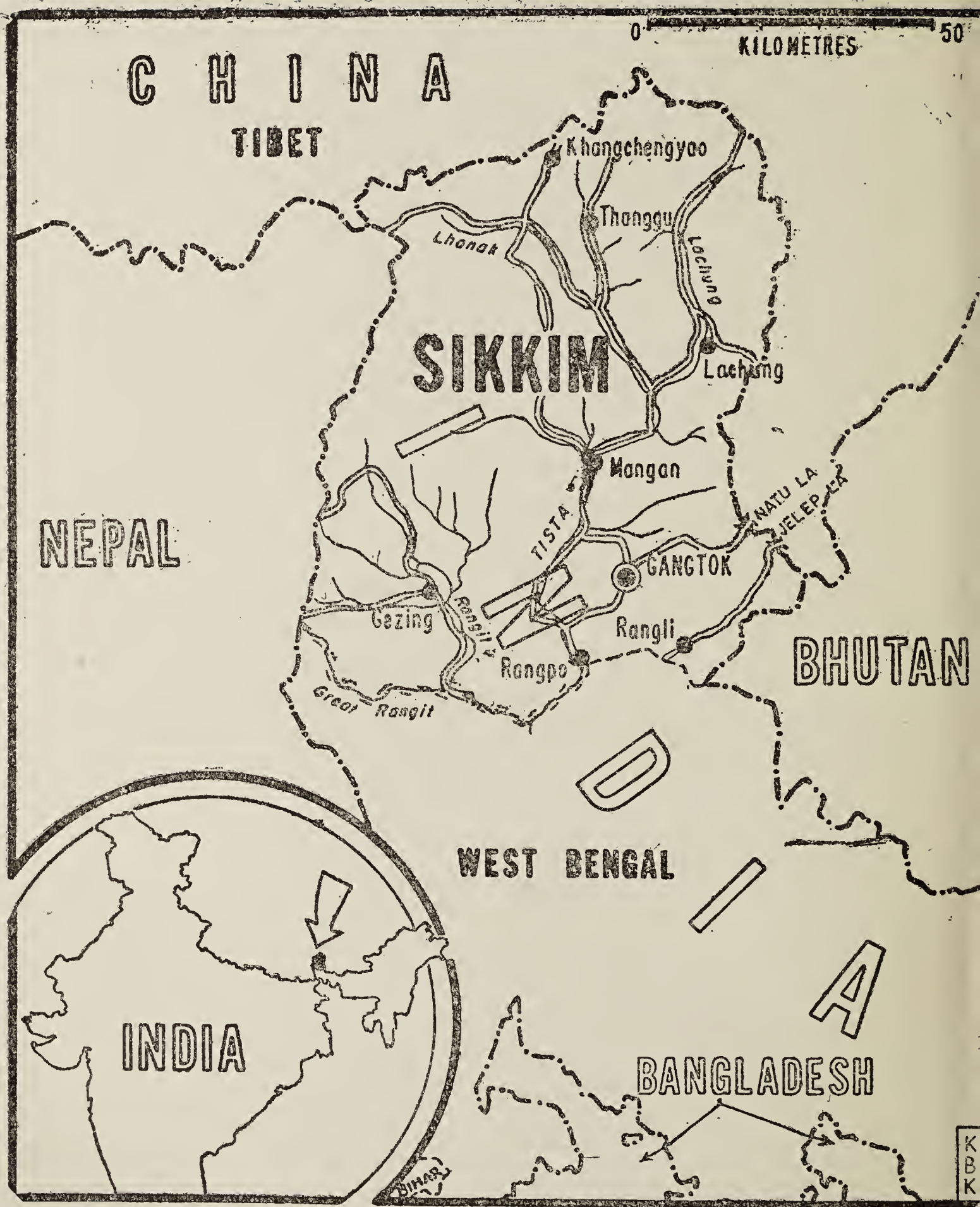
In the past few years, tourism has become a major industry in Sikkim. Several hotels have come up, providing employment opportunities to the local people. The Government has even provided financial assistance to the entrepreneurs to set up hotels or expand their capacity.

One of the infrastructures of tourism is tourist information. Information centres have been opened at New Delhi, Calcutta, Darjeeling and Bagdogra, the gateway to Gangtok in the plains.

A special service called Sikkim Himalayan Adventure has been organised to assist tourists in everything once they land at the Bagdogra airport and enter the State by road.

Despite its remoteness, Sikkim has so much to offer to the tourists. The State has a varied treasure of flora and fauna and its unsurpassed beauty.





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The territorial waters of India extend into the sea to a distance of twelve nautical miles.

measured from the appropriate base line.







**Surrounded by the towering and snow-mantled mountains of the Himalayan ranges, Sikkim, the youngest State of the Indian Union, conjures up the visions of the Shangrila. Its guardian is the 8,591-metre-high Mt. Kanchanjunga, which the Sikkimese venerate as the abode of the gods.**

**The kingdom of Sikkim joined the national mainstream as the twenty-second State on April 26, 1975, after a referendum. With this begun an era of democracy and progress for the State.**

**The simple and hard-working people of Sikkim comprise the Nepali, Lepcha and Bhutia ethnic groups. Sunil C. Roy, besides graphically describing the land and the people, has brought into focus the progress achieved by the State in various spheres since it became part of India.**



**PUBLICATIONS DIVISION  
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